

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 34. (Canceled)

35. (Currently amended) An electric cable comprising a conductor and an insulating coating surrounding said conductor, said insulating coating having a predetermined thickness and comprising at least two insulating layers, said insulating layers, in a radial direction from the inside toward the outside of said electrical cable, comprising:

a. at least one insulating layer made of a non-expanded polymeric material and

b. at least one insulating layer made of an expanded polymeric material, said at least one insulating layer made of an expanded polymeric material being integral with said at least one insulating layer made of a non-expanded polymeric material;

wherein said expanded polymeric material is obtained from a polymeric material that, before expansion, has a flexural modulus at room temperature, measured according to ASTM Standard D790, not greater than 200 MPa.

36. (Previously presented) The electric cable according to claim 35, wherein the thickness of said at least one insulating layer made of a non-expanded polymeric material is at least half of said predetermined thickness of said insulating coating.

37. (Previously presented) The electric cable according to claim 36, wherein the thickness of said at least one insulating layer made of a non-expanded polymeric

material is not lower than 70% of said predetermined thickness of said insulating coating.

38. (Previously presented) The electric cable according to claim 37, wherein the thickness of said at least one insulating layer made of a non-expanded polymeric material is not lower than 85% of said predetermined thickness of said insulating coating.

39. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material is bonded with said at least one insulating layer made of a non-expanded polymeric material.

40. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material is co-extruded with said at least one insulating layer made of a non-expanded polymeric material.

41. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made a non-expanded polymeric material adheres to said at least one conductor.

42. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material of said insulating coating is an intermediate layer between an inner insulating layer made of a non-expanded polymeric material and an external insulating layer made of an expanded polymeric material.

43. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material of said insulating coating is an intermediate layer between an inner insulating layer made of a non-expanded polymeric material and an external insulating layer made of a non-expanded polymeric material.

44. (Previously presented) The electric cable according to claim 42 or 43, wherein said intermediate insulating layer is circumferentially non-continuous in the cross-section.

45. (Previously presented) The electric cable according to claim 44, wherein said intermediate insulating layer presents at least one interruption.

46. (Previously presented) The electric cable according to claim 45, wherein said at least one interruption is located along the external profile of said inner insulating layer.

47. (Previously presented) The electric cable according to claim 45, wherein said at least one interruption is located in proximity of the external profile of said inner insulating layer.

48. (Previously presented) The electric cable according to claim 44, wherein said circumferentially non-continuous intermediate insulating layer comprises at least one semicircular sector.

49. (Previously presented) The electric cable according to claim 48, wherein said at least one semicircular sector is provided within said inner insulating layer.

50. (Previously presented) The electric cable according to claim 48, wherein said at least one semicircular sector is provided within said external insulating layer.

51. (Previously presented) The electric cable according to claim 42 or 43, wherein said intermediate insulating layer is circumferentially continuous in the cross-section.

52. (Canceled)

53. (Canceled)

54. (Currently Amended) The electric cable according to claim 35, wherein said flexural modulus is between 20 MPa and 200 MPa.

55. (Previously presented) The electric cable according to claim 54, wherein said flexural modulus is between 10 MPa and 150 MPa.

56. (Previously presented) The electric cable according to claim 35, wherein the polymeric material of said at least one insulating layer is an expandable polymer selected from the group comprising: polyolefins, copolymers of various olefins, olefins/unsaturated esters copolymers, polyesters, and their mixtures.

57. (Previously presented) The electric cable according to claim 56, wherein said expandable polymer is polyvinyl chloride.

58. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of a non-expanded polymeric material and said at least one insulating layer made of an expanded polymeric material are made of the same base polymeric material.

59. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material has an expansion degree between 2% and 500%.

60. (Previously presented) The electric cable according to claim 59, wherein said expansion degree is between 5% and 200%.

61. (Previously presented) The electric cable according to claim 60, wherein said expansion degree is between 10% and 50%.

62. (Previously presented) The electric cable according to claim 35, wherein said at least two insulating layers of said insulating coating present an insulating constant (k_i) greater than 750 MOhm*km at 20° C.

63. (Previously presented) The electric cable according to claim 35, wherein said at least two insulating layers of said insulating coating present an insulating constant (k_s) greater than 0.3 MOhm*km at 70° C.

64. (Previously presented) The electric cable according to claim 35, wherein said at least one insulating layer made of an expanded polymeric material has a thickness between 0.05 mm and 1.00 mm.

65. (Previously presented) The electric cable according to claim 64, wherein the thickness of said at least one insulating layer made of an expanded polymeric material is between 0.10 mm and 0.50 mm,

66. (Currently amended) A process for manufacturing an electric cable, said cable comprising a conductor and an insulating coating surrounding said conductor and comprising, in a radial direction from the inside toward the outside of said electrical

cable, at least one insulating layer made of a non-expanded polymeric material and at least one insulating layer made of an expanded polymeric material, comprising the steps of:

feeding said conductor to an extruding machine;

depositing by co-extrusion:

a non-expandable polymeric material in a position radially external to said conductor so as to form said at least one insulating layer made of a non-expanded polymeric material; and

an expandable polymeric material in a position radially external to said at least one insulating layer made of a non-expanded polymeric material so as to form said at least one insulating layer made of an expanded polymeric material; and

expanding said expandable polymeric material during said step of depositing by co-extrusion;

wherein said expandable polymeric material is obtained from a polymeric material that, before expansion, has a flexural modulus at room temperature, measured according to ASTM Standard D790, not greater than 200 MPa.

67. (Previously presented) The process according to claim 66, wherein said step of expanding is effected during said step of depositing by co-extrusion by adding an expanding agent.

68. (Previously presented) The process according to claim 67, wherein said step of expanding is effected during said step of depositing by co-extrusion by injecting a gas at a high pressure.